MULTIMEDIA UNIVERSITY

STUDENT ID NO

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# MULTIMEDIA UNIVERSITY

# FINAL EXAMINATION

**TRIMESTER 3, 2015/2016**

## PPE0044 – BASIC MICROECONOMICS

(Foundation in Business)

3 JUNE 2016
9.00 a.m - 11.00 a.m
(2 Hours)

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**INSTRUCTIONS TO STUDENT**

1. This question paper consists of **FOURTEEN** pages excluding cover page.
2. Answer **ALL** questions in **Section A** and **B**.
3. The answers for **Section A** should be shaded on the OMR sheet. The answers for **Section B** should be written in the Answer Booklet.

## SECTION A: MULTIPLE CHOICE QUESTIONS [50 MARKS]

**Instructions:** Answer **ALL** questions in this section. Shade the answers on the **OMR** sheet.

1. The factor of production that is rewarded with profit is _____.
   A. land
   B. labour
   C. capital
   D. entrepreneurial ability

Refer to ***Exhibit 1*** for question no.2.

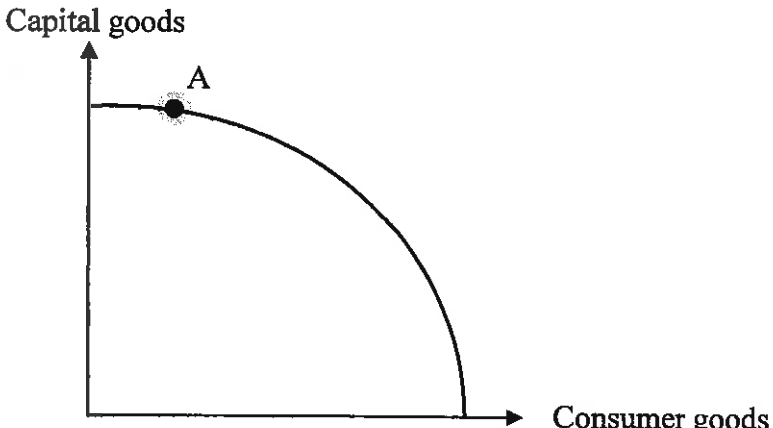


***Exhibit 1***

2. Refer to ***Exhibit 1***. Point A represents a situation of _____.
   A. full employment but production inefficiency
   B. less than full employment but production efficiency
   C. less than full employment and production inefficiency
   D. both full resource employment and production efficiency

3. Which of the following is an element of command economy?
   A. The market decides distribution.
   B. Production decisions are centralised.
   C. The market decides what will be produced.
   D. The means of production are privately owned.

4. The equilibrium price _____.
   A. is the price at which demand equals supply
   B. occurs when there is either a shortage or a surplus
   C. is the price that suppliers receive minus the opportunity cost
   D. is the price at which the quantity demanded equals the quantity supplied

**Continued...**

5. Bad harvests of corn often cause an increase in the price of corn because _____.
   A. the demand curve shifts
   B. the quantity supplied falls
   C. the supply curve shifts to the left
   D. the supply curve shifts to the right

6. A labour shortage of qualified fitness instructors that increases their wage rates will _____ the equilibrium price and _____ the equilibrium quantity of health club memberships.
   A. increase; increase
   B. decrease; increase
   C. decrease; decrease
   D. increase; decrease

Refer to ***Exhibit 2*** for question no.7.

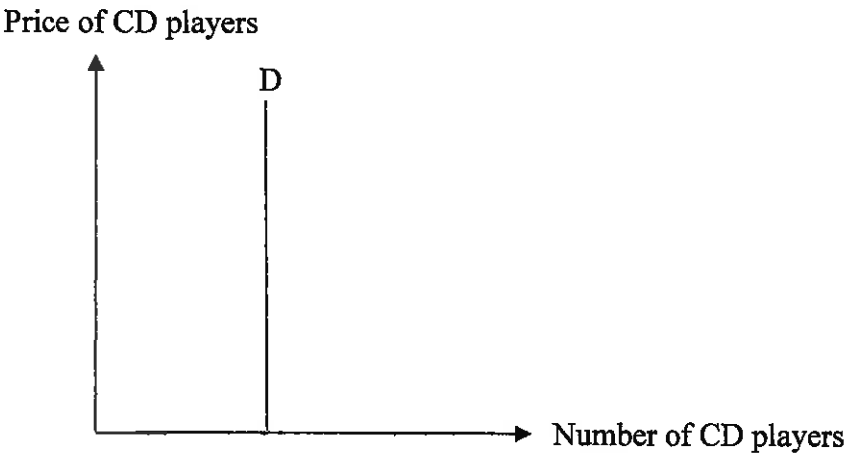


***Exhibit 2***

7. ***Exhibit 2*** depicts that the demand for CD players is _____.
   A. unit price elastic
   B. perfectly price elastic
   C. perfectly price inelastic
   D. perfectly income inelastic

8. A government wants to reduce electricity consumption by 10%. The price elasticity of demand for elasticity is -5. The government must _____ the price of electricity by _____.
   A. raise; 2.0%
   B. raise; 0.5%
   C. raise; 1.25%
   D. lower; 0.5%

**Continued...**

9. Total revenue increases if price _____ and demand is _____.
   A. falls; elastic
   B. rises; elastic
   C. falls, inelastic
   D. rises; unit elastic

10. The demand for Shell gas will tend to be _____.
   A. more elastic, the more urgently gas is needed
   B. less elastic, the lower the price of substitutes
   C. less elastic, the greater the availability of close substitutes for Shell gas
   D. less elastic, the smaller the share of consumers' income spent on Shell gas

11. The cross-price elasticity of demand between beans and rice is -4.0%. A 2% decrease in the price of beans will lead to _____.
   A. a 8% decrease in the demand for rice
   B. an 8% increase in the demand for rice
   C. a 0.5% decrease in the demand for rice
   D. an 0.5% increase in the demand for rice

12. John's income has just risen from RM940 per week to RM1060 per week. As a result, he decides to purchase 9% more steak per week. The income elasticity of John's demand for steak is _____.
   A. 0.75
   B. 1.00
   C. -0.90
   D. -1.33

13. If a large percentage decrease in the price of oranges causes a small percentage decrease in the quantity supplied, _____.
   A. supply is elastic
   B. demand is elastic
   C. supply is inelastic
   D. demand is inelastic

14. A government is considering levying a tobacco tax to raise revenue to finance health care benefits. People for the tax argue that tobacco demand is price inelastic. Which of the following statements is **TRUE**?
   A. This tax will not raise much revenue either in the short term or the long term because demand is price inelastic.
   B. This is a very good way to raise revenue both in the short term and in the long term because there are no close substitutes for tobacco.
   C. The tobacco tax may not raise as much revenue as anticipated in the years to come because tobacco demand is likely to become more elastic over time.
   D. No tax revenue can be raised in this way because tobacco sellers will just lower their price by the amount of the tax, and therefore the consumer price of tobacco will not change.

**Continued...**

15. If utility is not maximised, then _____.
    A. only a change in price will increase utility
    B. only a change in income will increase utility
    C. no change in consumption will increase utility
    D. some change in consumption will increase satisfaction

16. A fall in marginal utility reflects _____.
    A. the water and diamond paradox
    B. decreased consumption of a good
    C. the fact that total utility must be declining
    D. the principle of diminishing marginal utility

17. If the price of a good falls, the marginal utility per dollar spent on that good _____.
    A. rises
    B. also falls
    C. stays the same
    D. will rise or fall, depending on the consumer

18. Suppose the law of diminishing marginal utility holds for coffee. As a person drinks more coffee during the day, the total utility he or she receives will _____.
    A. fall steadily
    B. remain constant
    C. increase faster and faster
    D. rise, but at slower and slower rates

19. Suppose the price of good B, a normal good, rises. A "substitution effect" of this price rise _____.
    A. does not exist, due to B being a normal good
    B. does not exist, due to the ceteris paribus condition
    C. contributes to the increase in the quantity demanded for B
    D. contributes to the decrease in the quantity demanded for B

**Continued...**

Refer to ***Exhibit 3*** for question no.20.

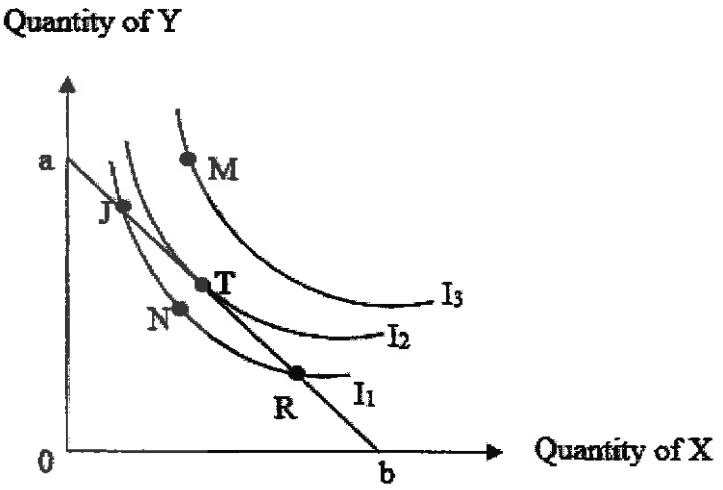


***Exhibit 3***

20. Refer to ***Exhibit 3***. $I_1$, $I_2$ and $I_3$ are indifference curves and 'ab' is the relevant budget line. If the consumer is initially at point R, he should _____.
    A. purchase more of X and less of Y
    B. purchase more of Y and less of X
    C. remain at that point in order to maximise utility
    D. strive for point N by obtaining a larger money income

21. If the indifference curves between two goods are L-shaped, they are _____.
    A. normal goods
    B. inferior goods
    C. perfect substitutes
    D. perfect complements

22. Which variables determine a household's budget line?
    A. preferences and real income.
    B. relative prices and preferences.
    C. relative prices and real income.
    D. preferences and monetary income.

23. Mary runs a restaurant in Melaka. Her total revenue last year was RM150,000. The rent on her restaurant was RM35,000, her labour costs were RM20,000, and her materials, food and other variable costs were RM20,000. Mary could have worked as a biologist and earned RM50,000 per year. An economist calculates her implicit costs as _____.
    A. RM25,000
    B. RM50,000
    C. RM75,000
    D. RM150,000

**Continued...**

***Exhibit 4*** shows the total output produced at a local pizza restaurant. Refer to ***Exhibit 4*** for questions no. 24 and no. 25.

| Labour (workers per day) | Total product (pizzas per day) |
|---|---|
| 0 | 0 |
| 1 | 5 |
| 2 | 15 |
| 3 | 23 |
| 4 | 30 |
| 5 | 35 |

***Exhibit 4***

24. Refer to ***Exhibit 4***. The marginal product for the 3rd worker is _____ pizzas.
    A. 7
    B. 8
    C. 23
    D. 30

25. Refer to ***Exhibit 4***. Which worker has the largest marginal product?
    A. Worker 2
    B. Worker 3
    C. Worker 4
    D. Worker 5

26. Which of the followings will definitely cause the average product to increase as more labour is hired?
    A. The marginal product is positive.
    B. The marginal product is less than the average product.
    C. The marginal product is equal to the average product.
    D. The marginal product is greater than the average product.

27. If Melissa owns a software company that incurs no fixed costs, then _____.
    A. her total cost equals to zero
    B. she will earn an economic profit
    C. her total cost equals to her total variable cost
    D. her total variable cost is less than her total cost

28. Which of the following would be classified as a variable cost for a bakery shop?
    A. Interest payments to a local bank for a 5-year loan.
    B. The rent from the six-year lease for the building the store uses.
    C. The premiums paid for liability insurance, which are constant throughout the life of the contract.
    D. The total wages paid to the workers who are all paid RM10 per hour, no matter how many hours they work each week.

**Continued...**

29. When more labours are used to produce more output, a firm can always reduce its _____.
    A. marginal cost
    B. average total cost
    C. average fixed cost
    D. average variable cost

30. A firm's average total cost is RM120, its average variable cost is RM60, and its total fixed cost is RM1200. The firm's output is _____.
    A. 20
    B. 30
    C. 40
    D. 50

31. If the amount of total cost, average total cost, average variable cost, and marginal cost for each level of output are given, how can we find the level of output where the marginal product is the greatest?
    A. It is the output for which the total cost is maximised.
    B. It is the output for which the marginal cost is minimised.
    C. It is the output for which the marginal cost equals average total cost.
    D. It is the output for which the marginal cost equals average variable cost.

32. Under perfect competition, a firm is a price taker because _____.
    A. each firm has a significant market share
    B. each firm's product is perceived as different
    C. setting a price higher than the going price results in profits
    D. setting a price higher than the going price results in zero sales

33. A perfectly competitive firm is producing at the point where its marginal cost equals the price of its product. If it boosts its output, its total revenue will _____.
    A. fall and its profits will fall
    B. fall and its profits will rise
    C. rise and its profits will fall
    D. rise and its profits will rise

34. As new firms enter an industry, during the transition from the short run to the long run the price _____.
    A. falls and the economic profit for each existing firm increases
    B. rises and the economic profit for each existing firm increases
    C. falls and the economic profit for each existing firm decreases
    D. rises and the economic profit for each existing firm decreases

**Continued...**

35. In the price range above minimum average variable cost, a perfectly competitive firm's supply curve is _____.
    A. vertical at zero output
    B. horizontal at the market price
    C. the same as its marginal cost curve
    D. the same as its average variable cost curve

36. Assume that a firm's marginal revenue just barely exceeds marginal cost. Under these conditions the firm should _____.
    A. expand output
    B. contract output
    C. maintain output
    D. there is insufficient information to answer the question

37. Arbott has only two products – ground nuts and goat cheese. These goods are substitutes and are produced by perfectly competitive firms. Initially, both markets are in long-run equilibrium. Now consumer preferences shift away from goat cheese and toward ground nuts. Given the preceding information, we would expect _____.
    A. long-run losses in the goat cheese industry
    B. long-run profits in the ground nut industry
    C. short-run losses in the ground nut industry
    D. short-run profits in the ground nut industry

38. A natural monopoly _____.
    A. arises as a result of legal barriers to entry
    B. occurs when one firm owns a natural resource
    C. arises when one firm can meet the entire market demand at a lower average total cost than two or more firms
    D. both answers A and B are correct

39. Which of the following statements is correct?
    A. Monopolies are guaranteed to earn an economic profit.
    B. The market demand and the firm's demand are the same for a monopoly.
    C. Because a monopoly is the only firm in the market, its supply curve is the same as the market demand curve.
    D. Because a monopoly is the only firm in the market, its marginal revenue curve must be the same as the market demand curve.

40. A single-price monopoly faces a linear demand curve. If the marginal revenue for the second unit is RM20, then the marginal revenue for the _____.
    A. third unit is also RM20
    B. first unit is less than RM20
    C. third unit is less than RM20
    D. third unit is more than RM20

**Continued...**

41. Suppose a monopoly sells 3 units of a good at RM60 per unit. If the monopoly sells 4 units, the total revenue increases to RM200. What is the price charged for 4 units?
    A. RM20
    B. RM30
    C. RM40
    D. RM50

42. BB's Snorkel is the sole renter of snorkelling gears on Langkawi Island, Malaysia. BB does not price discriminate. For BB's Snorkel, the change in total revenue from each additional snorkelling gear rented is its _____.
    A. marginal revenue and is equal to the rental price of a snorkelling gear
    B. marginal cost and is greater than the rental price of a snorkelling gear
    C. marginal revenue and is less than the rental price of a snorkelling gear
    D. marginal cost and is constant regardless of how many snorkelling gears are rented

***Exhibit 5*** shows the demand schedule for water bottled by a local monopoly firm. Refer to ***Exhibit 5*** for questions no. 43 and no. 44.

| Price (RM per bottle) | Quantity demanded (bottles per day) |
|---|---|
| 16 | 0 |
| 15 | 1 |
| 14 | 2 |
| 13 | 3 |
| 12 | 4 |
| 11 | 5 |
| 10 | 6 |
| 9 | 7 |
| 8 | 8 |

***Exhibit 5***

43. Refer to ***Exhibit 5***. If the marginal cost is constant at RM3 per bottle, the firm will produce _____ a day and charge _____ a bottle.
    A. 7 bottles; RM9
    B. 8 bottles; RM8
    C. 5 bottles; RM11
    D. 6 bottles; RM10

**Continued...**

44. Refer to ***Exhibit 5***. If the marginal cost is constant at RM3 per bottle, and the firm is currently producing 2 bottles a day. The firm will _____ to maximise its profits.
    A. raise its price and decrease its output
    B. lower its price and increase its output
    C. lower its price and decrease its output
    D. not change its price and increase its output

45. Monopolistic competition differs from monopoly because in monopolistic competition _____.
    A. there are many firms
    B. the firms compete only on price
    C. there are no close substitutes for each firm's product
    D. firms set marginal revenue equal to marginal cost to maximise profit

46. The freedom of entry and exit in monopolistic competition means that firms _____.
    A. exit the market when economic profits are being made
    B. enter the market when economic losses are being incurred
    C. enter the market when firms are making zero economic profit
    D. can enter a market to compete for economic profits and leave when economic losses are being incurred

47. In a monopolistically competitive industry, the firms are currently making an economic profit. When this market moves to its long-run equilibrium, the firms' demand curves will have _____ and their economic profit will have _____.
    A. shifted leftward; decreased to zero
    B. shifted rightward; decreased to zero
    C. remained the same; decreased to zero
    D. shifted leftward; decreased but remain greater than zero

48. Which of the following is a characteristic of oligopoly, but **NOT** of monopolistic competition?
    A. Firms are profit-maximisers.
    B. There is more than one firm in the industry.
    C. Each firm faces a downward-sloping demand curve.
    D. The choices made by one firm have a significant effect on other firms.

49. Producing a homogeneous product occurs in which of the following industries?
    A. perfect competition only
    B. oligopoly and perfect competition
    C. monopolistic competition and perfect competition
    D. oligopoly, monopolistic competition and perfect competition

**Continued...**

50. The kinked demand curve model assumes that a firm believes that its rivals will _____.

A. set their price independently
B. follow the firm's price cuts but not its increases
C. follow any changes of price that the firm undertakes
D. follow the firm's price increases but not its price cuts

## SECTION B: STRUCTURED QUESTIONS [50 MARKS]

**Instructions:** Answer **ALL** questions in this section. Write your answers in the Answer Booklet.

***Question 1***
**Part A**

***Exhibit 6*** depicts the marginal utility obtained by Anne from the consumption of good X and good Y.

| Qty of good X | Marginal utility of good X | Qty of good Y | Marginal utility of good Y |
|---|---|---|---|
| 1 | 20 | 1 | 14 |
| 2 | 16 | 2 | 12 |
| 3 | 12 | 3 | 10 |
| 4 | 8 | 4 | 8 |
| 5 | 4 | 5 | 6 |

***Exhibit 6***

Assume that price of good X is RM2 per unit and price of good Y is RM1 per unit and Anne has RM8 to spend on good X and good Y.

Based on ***Exhibit 6***, answer the following questions:

a) Calculate the marginal utility per price ratio for good X and good Y.

(5 marks)

b) How many units of good X and good Y should Anne consume in order to maximise her total utility? Why?

(4 marks)

c) Due to some changes that have taken place, Anne realised that if she continues with her current consumption of good X and good Y, she is in the situation where $MU_x/P_x < MU_y/P_y$. What factor would have caused this to happen? What should Anne do to restore her equilibrium?

(3 marks)

**Continued...**

## Part B

***Exhibit 7*** represents a portion of Shaun's indifference map and his budget line.

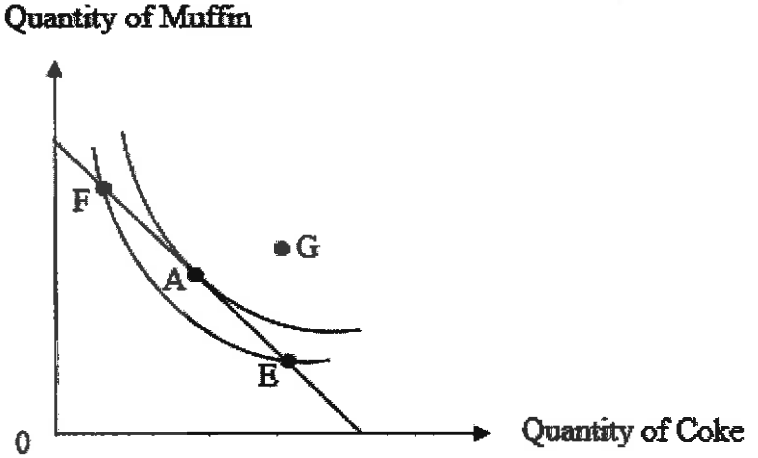


***Exhibit 7***

Based on ***Exhibit 7***,

a) which point(s) is(are) considered as affordable point(s)? Why?

(2 marks)

b) at which point does Shaun maximise his utility subject to his budget constraint? What condition holds at this point?

(3 marks)

c) suppose that Shaun is currently consuming at point F, what should he do to achieve his equilibrium?

(2 marks)

d) what changes must take place in order for Shaun to achieve point G?

(1 mark)

**[TOTAL 20 MARKS]**

**Continued...**

## *Question 2*

***Exhibit 8*** shows Jenny's Pizza's production. Jenny pays her worker RM50 per person per day. She leases an oven for RM30 per day and sells her pizza at RM30 per piece.

| Labour (workers) | Plant 1 | Plant 2 | Plant 3 | Plant 4 |
|---|---|---|---|---|
| 1 | 8 | 11 | 13 | 14 |
| 2 | 18 | 22 | 24 | 25 |
| 3 | 26 | 30 | 33 | 35 |
| 4 | 31 | 36 | 40 | 43 |
| 5 | 34 | 40 | 45 | 50 |
| 6 | 35 | 42 | 48 | 54 |
| 7 | 33 | 40 | 47 | 54 |
| Ovens | 1 | 2 | 3 | 4 |

***Exhibit 8***

Based on ***Exhibit 8***,

a) suppose Jenny hires 2 workers a day, calculate her marginal product of capital for 2nd, 3rd and 4th plant that she uses.

(3 marks)

b) suppose Jenny currently uses Plant 3. Can she increase her production from 40 to 50 pizzas per day in the short run? Why?

(2 marks)

c) suppose Jenny currently uses Plant 3. Can she increase her production from 40 to 50 pizzas per day in the long run? Why?

(2 marks)

d) suppose Jenny operates Plant 2. Calculate her total cost (TC) and average total cost (ATC) for each worker hired.

(7 marks)

e) if this is the long run production function for Jenny, does she face diminishing marginal return? Why?

(1 mark)

**[TOTAL 15 MARKS]**

**Continued...**

## *Question 3*

Tom is one of many producers in the purely competitive copper wire market. ***Exhibit 9*** provides data on Tom's output in coils per week, and its total costs.

| Output (unit) | Total revenue (RM) | Total cost (RM) | Marginal revenue (RM) | Marginal cost (RM) |
|---|---|---|---|---|
| 0 | | 3 | | |
| 1 | | 5 | | |
| 2 | | 20 | | |
| 3 | | 45 | | |
| 4 | | 80 | | |

***Exhibit 9***

Based on ***Exhibit 9***,

a. if the market price of wire is currently RM 25 per coil, compute marginal revenue, marginal cost and total revenue at each level of output.

(8 marks)

b. if the firm is currently producing 2 units of output, is the firm maximising its profit? If it is not, what should the firm do in order to maximise its profits?

(3 marks)

c. state the condition to determine profit-maximising level of output using both total approach and marginal approach.

(2 marks)

d. using MC and MR approach, what is the profit maximising level of output?

(1 mark)

e. using total approach, what is the profit maximising level of output? At the profit maximising level of output, how much is the profit?

(1 mark)

**[TOTAL 15 MARKS]**

**End of Paper**